TAINY SwitchingCenter V3

Software Release Note

Version 3.030

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Content

1 Introduction and information for the update

This release note illustrates the major differences of the software versions of the TAINY SwitchingCenter **V3.030** from the preceding version **V3.029**.

It provides information about new and improved functions.

Before using the new version of the software in live operation, please conduct a compatibility test with your application.

The system license is requested in the scope of the respective update. Please have your access data for the TSC3 database ready (AdminUser/Password and IP address/Port)

The overall TSC system must be shut down prior to an update. For this purpose, stop all TSC-3 nodes and the TSC-3 webserver. To do so, please refer to the manual for the respective procedure.

1.1 Database update

Prior to each update, you should save the current content of your TAINY SwitchingCenter database already in use. For this purpose, proceed as described in the manual under the section *Creating a backup* (Chapter 13.2).

The update of the database must be implemented incrementally.

To update the database, please use the program *"database-update_3v0**xx**_to_3v0**yy**.exe"*. It is not necessary to reinstall the database with this procedure. The contents of the database are preserved.

If necessary, the update must be implemented in multiple stages (3.018 -> 3.022, 3.022 -> 3.023, 3.023 -> 3.024, 3.024 -> 3.027, 3.027 -> 3.028, 3.027 -> 3.029 and then 3.029 -> 3.030).

1.2 Webserver update

To update the webserver, please start the installer on the appropriate system. The previous installation is automatically removed in the process.

1.3 Node update

To update the respective node, please start the installer on the appropriate system. The previous installation is automatically removed in the process.

2 Version 3.030

2.1 New functions

2.1.1 Node: NodeObserver support implemented

The node supports the cooperation with the TSC NodeObserver, an additional system service to monitor the node status from external applications (e.g. loadbalancer).

2.2 Improved and changed functions

2.2.1 Webserver: Adaption to newer browser versions

The TSC-3 web user interface shows some display problems with different current browser versions on the pages “Status”, “System” and “Licences”.

Error corrected in the webserver scripts.

2.2.2 Node: Bugfix - race condition by redirecting

In individual cases and worst timing behaviors the node runs into a race condition when a gate was redirected during the login procedure to a second node. Sometimes the node freeze and didn’t react anymore or the database contains inconsistent data sets.

Error is corrected in this node version.

2.2.3 Node: Remove system blocking during log export

During bigger log exports the database was blocked and consequently the whole TSC system.

Corrected this behavior by sourcing the export out to a separate thread. So the main message queue will not stress by the log export anymore.

2.2.4 Node, Webserver: Improved the log export

The log export pop-up window shows now the export progress with a progress bar. During the process the user can continue his work in the TSC-3 web user interface when the pop-up window is already open in the background.

2.2.5 Node: Additional configurable timeouts

Additional timeouts are configurable in the *nodecfg.xml* now.

Example for a nodecfg.xml (new timeout parameters are bold):

```
<config>
<SYSTEM SERIAL="A1234567"></SYSTEM>
<GATEWAYNODE NAME="Node1"></GATEWAYNODE>
<MAINDATABASE IP="localhost" PORT="3306" USER ="MainDbUser"></MAINDATABASE>
<LOGDATABASE IP="localhost" PORT="3306" USER ="LogDbUser"></LOGDATABASE>
<BEHAVIOR GC="TRUE"
  PUSH_JOB_TARGET_REGISTER_TIMEOUT = "80"
```

```
 PUSH_JOB_TARGET_DEREGISTER_TIMEOUT = "80"
 PUSH_JOB_CHANNEL_OPEN_REQUEST_TIMEOUT = "80"
 PUSH_JOB_CHANNEL_CLOSE_REQUEST_TIMEOUT = "80"
 PUSH_JOB_PUSH_NAMELIST_REQUEST_TIMEOUT = "80"
 PUSH_JOB_PUSH_DATA_TRANSFER_RESPONSE_TIMEOUT = "65"
 PUSH_JOB_PUSH_DATA_TRANSFER_PS_NOTYFY_TIMEOUT = "60"
 PUSH_JOB_ACK_TIMEOUT_DEFAULT = "70"
 LOGIN_IPT_DEVICE_FIRMWARE_REQUEST_TIMEOUT = "180"
 LOGIN_IPT_PROTOCOL_VERSION_REQUEST_TIMEOUT = "180"
 LOGIN_IPT_IPSTATISTIC_REQUEST_TIMEOUT = "180"
 NODE_RESPONSE_CS_TIMEOUT = "165"
 DEVICEJOB_CS_TIMEOUT = "80"
 NODE_RESPONSE_CS_IPT_TIMEOUT = "165"
 DEVICEJOB_CS_IPT_TIMEOUT = "80"
 NODE_RESPONSE_LL_TIMEOUT = "165"
 DEVICEJOB_LL_TIMEOUT = "80"
 NODE_RESPONSE_LL_IPT_TIMEOUT = "165"
 DEVICEJOB_LL_IPT_TIMEOUT = "80"
 DEVICEMAINTENANCE_TIMEOUT = "80"

 ></BEHAVIOR>
</config>
```

All timeouts are specified in seconds. If the node does not find an entry in the XML file, the following default timeouts will be set:

```
LOGIN_IPT_DEVICE_FIRMWARE_REQUEST_TIMEOUT = "30"
LOGIN_IPT_PROTOCOL_VERSION_REQUEST_TIMEOUT = "30"
LOGIN_IPT_IPSTATISTIC_REQUEST_TIMEOUT = "30"
NODE_RESPONSE_CS_TIMEOUT = "60"
DEVICEJOB_CS_TIMEOUT = "30"
NODE_RESPONSE_CS_IPT_TIMEOUT = "60"
DEVICEJOB_CS_IPT_TIMEOUT = "30"
NODE_RESPONSE_LL_TIMEOUT = "60"
DEVICEJOB_LL_TIMEOUT = "30"
NODE_RESPONSE_LL_IPT_TIMEOUT = "60"
DEVICEJOB_LL_IPT_TIMEOUT = "30"
DEVICEMAINTENANCE_TIMEOUT = "30"
```

Attention!

Do not use timeouts smaller than the default timeouts. The following rule must be strictly adhered to:

```
NODE_RESPONSE_CS_TIMEOUT  >= 2 * DEVICEJOB_CS_TIMEOUT
 NODE_RESPONSE_CS_IPT_TIMEOUT >= 2 * DEVICEJOB_CS_IPT_TIMEOUT
 NODE_RESPONSE_LL_TIMEOUT >= 2 * DEVICEJOB_LL_TIMEOUT
 NODE_RESPONSE_LL_IPT_TIMEOUT >= 2 * DEVICEJOB_LL_IPT_TIMEOUT
```

A wrong configuration can be cause misbehavior of the whole TSC-3 system!

3 Version 3.029

3.1 New functions

3.2 Improved and changed functions

3.2.1 Database: Stored procedure optimizing

Optimizing the database stored procedures to clean up hanging dial-up lines by reconnecting of involved gates.

3.2.2 Node: Warning "already in dictionary"

In individual cases, the TSC generates warning messages in the Windows event log like „Warning! Device: xyz is already in Dictionary, EXIT !!!" and as a result the node will be restarted.

The error occurred when one gate tries to connect to different nodes nearly at the same time. This misbehavior will now captured by the node with cleaning the database and killing the old gate instance.

3.2.3 Webserver: Force a new password by https

When the administrator set the option for a user account „Force a new password at next login for this user" and the user login secured at next time he didn't force to choose a new password.

Error corrected in the webserver scripts.

4 Version 3.028

4.1 New functions

4.2 Improved and changed functions

4.2.1 Node, Webserver, Database: MySQL Connector DLL replacement

Replacement of the MySQL connector version 5.2.7.0 with the current version 6.5.4.0 and adaption to the new connector in node, webserver and database.

The MySQL connector is needed by the components to communicate to the MySQL database.

With the new MySQL connector there is a significant improvement of database performance.

Individually occurring MySQL error problems triggering a node restart are obsolete now.

4.2.2 Node: Configurable push timeouts

Now all IP-T push command timeouts are configurable in the *nodecfg.xml*.

Example of a default *nodecfg.xml* (created during the installation process):

```
<config>
<SYSTEM SERIAL="A1234567"></SYSTEM>
<GATEWAYNODE NAME="Node1"></GATEWAYNODE>
<MAINDATABASE IP="localhost" PORT="3306" USER ="MainDbUser"></MAINDATABASE>
<LOGDATABASE IP="localhost" PORT="3306" USER ="LogDbUser"></LOGDATABASE>
<BEHAVIOR GC="TRUE"
  PUSH_JOB_TARGET_REGISTER_TIMEOUT = "80"
  PUSH_JOB_TARGET_DEREGISTER_TIMEOUT = "80"
  PUSH_JOB_CHANNEL_OPEN_REQUEST_TIMEOUT = "80"
  PUSH_JOB_CHANNEL_CLOSE_REQUEST_TIMEOUT = "80"
  PUSH_JOB_PUSH_NAMELIST_REQUEST_TIMEOUT = "80"
  PUSH_JOB_PUSH_DATA_TRANSFER_RESPONSE_TIMEOUT = "65"
  PUSH_JOB_PUSH_DATA_TRANSFER_PS_NOTYFY_TIMEOUT = "60"
  PUSH_JOB_ACK_TIMEOUT_DEFAULT = "70"
  ></BEHAVIOR>
</config>
```

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All timeouts are specified in seconds. If the node does not find an entry in the XML file, the following default timeouts will be set:

PUSH_JOB_TARGET_REGISTER_TIMEOUT = "60"
PUSH_JOB_TARGET_DEREGISTER_TIMEOUT = "60"
PUSH_JOB_CHANNEL_OPEN_REQUEST_TIMEOUT = "60"
PUSH_JOB_CHANNEL_CLOSE_REQUEST_TIMEOUT = "60"
PUSH_JOB_PUSH_NAMELIST_REQUEST_TIMEOUT = "60"
PUSH_JOB_PUSH_DATA_TRANSFER_RESPONSE_TIMEOUT = "25"
PUSH_JOB_PUSH_DATA_TRANSFER_PS_NOTYFY_TIMEOUT = "20"
PUSH_JOB_ACK_TIMEOUT_DEFAULT = "30"

Attention!

Do not use timeouts smaller than the default timeouts. The following rule must be strictly adhered to:

PUSH_JOB_ACK_TIMEOUT_DEFAULT > PUSH_JOB_PUSH_DATA_TRANSFER_RESPONSE_TIMEOUT > PUSH_JOB_PUSH_DATA_TRANSFER_PS_NOTYFY_TIMEOUT

A wrong configuration can be cause misbehavior of the whole TSC-3 system!

For further details, see TSC-3 User Manual, chapter 5.3 (node configuration file).

5 Version 3.027

5.1 New functions

5.1.1 Node: New structure of the database connection with SQL Exceptions

As soon as an exception is thrown with an SQL query, because the node cannot reach the database (main or log database), the node attempts to re-establish the connection to the appropriate database four times and then to invoke the SQL command again. If this should fail four times, the node is restarted within the next 60 seconds.

5.2 Improved and changed functions

5.2.1 Node: Automatic memory cleaning (garbage collection)

The automatic memory cleaning process (garbage collection) can now be switched on with a switch in *nodecfg.xml* so that it is triggered every 30 minutes in addition to the automation. In order to switch on this mechanism with the XML file, the following XML element must be inserted in the *nodecfg.xml* of the node:

```
<BEHAVIOR GC="TRUE"></BEHAVIOR>
```

Example of a *nodecfg.xml*:

```
<config>
<SYSTEM SERIAL="A1234567"></SYSTEM>
<GATEWAYNODE NAME="Node1"></GATEWAYNODE>
<MAINDATABASE IP="localhost" PORT="3306" USER ="MainDbUser"></MAINDATABASE>
<LOGDATABASE IP="localhost" PORT="3306" USER ="LogDbUser"></LOGDATABASE>
<BEHAVIOR GC="TRUE"></BEHAVIOR>
</config>
```

For further details, see TSC-3 User Manual, chapter 5.3.

5.2.2 Node: MySQL timeout command for database access

The timeouts for all database access (main and log database) can now be freely configured through one element in *nodecfg.xml*.

```
<BEHAVIOR MYSQLCMDTIMEOUT_MDB="60" MYSQLCMDTIMEOUT_LDB="60"></BEHAVIOR>
```

The timeout is specified in seconds. If the node does not find an entry for the MySQL timeout command in the XML file, a default timeout of 180 seconds is set.

Example of a nodecfg.xml:

```
<config>
<SYSTEM SERIAL="A1234567"></SYSTEM>
```

```
<GATEWAYNODE NAME="Node1"></GATEWAYNODE>
<MAINDATABASE IP="localhost" PORT="3306" USER ="MainDbUser"></MAINDATABASE>
<LOGDATABASE IP="localhost" PORT="3306" USER ="LogDbUser"></LOGDATABASE>
<BEHAVIOR MYSQLCMDTIMEOUT_MDB="60" MYSQLCMDTIMEOUT_LDB="60"></BEHAVIOR>
</config>
```

Note:

The two functions can be combined as follows:

```
<BEHAVIOR GC="TRUE" MYSQLCMDTIMEOUT_MDB="60" MYSQLCMDTIMEOUT_LDB="60"></BEHAVIOR>
```

For further details, see TSC-3 User Manual, chapter 5.3

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5.2.3 Node: Logging of database connection errors

Expanded log outputs for the error processing of database connection errors (see 5.1.1). Connection errors to the main database are logged in the TSC log and in the Windows Event Viewer; connection errors to the log database are only shown in the Windows Event Viewer.

5.2.4 Webserver: Display of symbols with the browser Firefox V6.x or higher

Starting with Firefox Version 6 there were problems displaying symbols in dropdown menus (e.g. editor mask gate).

Problem with adjustment of the Cascading Stylesheets (CSS) eliminated.

5.2.5 Webserver: Log evaluation now activated by default

The previously optional expanded evaluation of the TSC log is now activated by default and can be reached in the TSC-3 web user interface through the "Log Evaluation" tab.

For further details, see TSC-3 User Manual, chapter 18.

5.2.6 Webserver: Resetting the offline status of the TSC-3 system

Through the TSC-3 web user interface, the offline status of the TSC-3 system can now be reset (System >> Global options >> Database Maintenance >> Reset Offline state).

For further details, see TSC-3 User Manual, chapter 13.2.

5.2.7 Node/database: Registering push targets

Individually occurring problems with the push target registration have been eliminated.

Through timing problems, suspended push targets could arise in the database, after which the gate could not sign on with the same push target again.